

ATTACHMENT 1

To: David Guy and Frances Spivy-Weber
Co-Chairs, WUE Subcommittee

From: Tom Gohring
Program Manager, Water Use Efficiency Program

Date: August 1, 2002

Re: Revised Staff Proposal for Ag WUE Milestones (ROD Action #79)

Attached is the Staff Proposal for Agricultural Water Use Efficiency (WUE) Milestones (ROD Action #79). This document outlines a proposed process to periodically track, assess, report on and, as warranted, revise agricultural Water Use Efficiency milestones.

This document has been updated to reflect recommendations developed during the June 24 WUE Subcommittee meeting. The primary change to the document – incorporated on page 1 and in the accompanying tables – is intended to reflect Subcommittee members' interest in having the proposal reflect current WUE grant funding realities and future expectations. As well, the document has been revised to incorporate a table of contents.

As noted at the June 24 WUE Subcommittee meeting, the concepts incorporated into this staff proposal were earlier informed by extensive discussions with representatives of affected stakeholder communities – both through a CALFED-convened ad-hoc committee that met between May and October 2001 and through a series of public workshops held in May 2002. Based on discussions to-date, staff believes it is putting forward an approach that is balanced, credible and consistent with WUE objectives and goals.

We look forward to the Subcommittee's continued discussion on this topic. As this is an action item, please come prepared to develop a recommendation for consideration by the Bay-Delta Public Advisory Committee at its September meeting.

CALFED Bay-Delta Program

**Staff Proposal for Agricultural
Water Use Efficiency Milestones**

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CALFED Bay-Delta Program**Staff Proposal for Agricultural
Water Use Efficiency Milestones****SECTION I: INTRODUCTION:*****Intent and Use of This Document***

The Water Use Efficiency (WUE) Program is in the process of devising a comprehensive and broadly supported set of Program assurances. This document outlines the Program's proposed structure for addressing the agricultural-related portion of these assurances, which includes a process to periodically track, assess, report on and, as warranted, revise agricultural WUE-specific milestones.

This proposed approach to Agricultural WUE Milestones (Ag WUE Milestones) is to be formally reviewed and discussed with CALFED public advisory bodies and CALFED agency decision-makers. The Program expects to finalize this approach by mid-2002.

CALFED recognizes that the benchmarks outlined in this document are dependent on funding consistent with the August 2000 CALFED Record of Decision. If funding continues to deviate from ROD-stipulated levels, milestones and associated target thresholds will need to be refined commensurate with funding realities.

CALFED Water Use Efficiency Program Background

The CALFED Bay-Delta Program is a cooperative effort among state and federal agencies and the public to ensure a healthy ecosystem, reliable water supplies, good quality water, and stable levees in California's Bay-Delta system.

The Water Use Efficiency (WUE) Element – one of several CALFED program elements – is one of the cornerstones of CALFED's water management strategy. The WUE Element is unique nationally in its magnitude and its aggressive approach to water management.

Consisting of agricultural, urban, water recycling and managed refuge components, the WUE Program is based on the recognition that although efficiency measures are implemented locally and regionally, the benefits accrue at local, regional and statewide levels. The ultimate goal of the WUE Element is to develop programs and assurances that contribute to CALFED goals and objectives, have broad stakeholder acceptance, foster efficient water use, and help support a sustainable economy and ecosystem.

A key component of the WUE Element effort is a grant program intended to fund water management projects that will provide multiple benefits that are cost-effective at the statewide level. These benefits – drawn primarily from existing CALFED documents, the State's Impaired Water Body list (303d of the State Water Resources Control Board)

and discussions with local agricultural representatives – are targeted at achieving region- and time-specific goals related to ecosystem restoration, water quality and water supply reliability. WUE staff have been developing numeric targets – referred to as Quantifiable Objectives and expressed in terms of acre feet of water for a particular reach during a specific period – that represent the Program’s best, first-cut estimate of the practical, cost-effective contribution agriculture can make to attaining these water quality-, quantity- and in-stream flow/timing-related benefits. CALFED expects to articulate as many as 200 Quantifiable Objectives.

The WUE Element recognizes that its efforts are and will continue to be linked to and supported by other key programs, both within and outside the CALFED Bay-Delta Program. The WUE Element is committed to coordinating its efforts with the CALFED Science Program, relevant CALFED programs (such as the Ecosystem Restoration Program), and other state and federal agencies pursuing related activities. Both the list of CALFED benefits and related Quantifiable Objectives will be revised over time, based on information provided by the WUE Program in consultation with the Science Program, regarding the effectiveness of actions in achieving the desired benefits.

Impetus for the Development of Ag WUE Milestones

The CALFED ROD calls on CALFED to undertake annual evaluations to assess the effectiveness of its Water Use Efficiency Element and guide subsequent investments and program refinements. Specifically, the Record of Decision includes the following commitment:

“Within one year from the adoption of this ROD, CALFED Agencies will establish specific milestones, and associated benefits, remedies and/or consequences to track and guide the implementation of the Agricultural Water Use Efficiency Program.”

The milestones, target thresholds and proposed responses¹ presented in this document are intended to fulfill the ROD commitment related to agricultural milestones. A parallel effort – implementation of an urban certification process by the end of 2002 – is being undertaken to fulfill ROD-stipulated actions as they relate to urban assurances.

Process for Developing Ag WUE Milestones:

The WUE Element has relied on a set of key principles in developing the suggested approach outlined in this document. These principles – build on existing work, craft a balanced approach, involve stakeholders and draw on the necessary expertise – are also echoed in the Record of Decision:

“CALFED Agencies will put in place a process, structured to include the involvement and buy-in of interested parties (stakeholder and agency), to

¹ The Program uses the phrase “responses” to address the ROD’s stipulation that the Program develop “associated benefits, remedies and/or consequences.”

accomplish this work. The process will build on the work already begun by the Agricultural Water Use Efficiency Steering Committee.”

Below is a brief overview of the specific steps taken over the past few years to develop the ideas incorporated in this narrative. They include:

- **Pre-ROD Stakeholder Discussions.** Pre-ROD Ag Water Use Efficiency advisory committees (“Focus Group” and “Steering Committee”) developed significant materials and approaches related to assurances. Many of the concepts found in this document were initially developed by these groups.
- **Preliminary Staff Drafts.** CALFED staff and consultants developed numerous draft papers and possible approaches related to agricultural WUE milestones, thresholds and possible responses. These drafts were structured to be consistent with earlier stakeholder discussions.
- **Ad Hoc Work Group.** Between May 2001 and October 2001, CALFED convened an ad-hoc committee consisting of agricultural, environmental and agency representatives to serve as an informal sounding board on issues related to Ag WUE assurances. This ad-hoc committee focused much of its discussions on the draft approaches presented by CALFED staff and consultants.
- **Final Staff Draft.** Based on the informal stakeholder feedback outlined above and the advice of technical staff, WUE staff drafted the proposed approach outlined in this document. This approach has been discussed with affected stakeholder communities through a series of public meetings held in May 2002. CALFED believes the recommendations incorporated in this material represent an approach that is balanced, credible and consistent with WUE objectives and goals.

SECTION II: DESCRIPTION OF AG WUE MILESTONES:

The Water Use Efficiency Element is putting forward a set of milestones that it believes will enable CALFED and interested stakeholders to effectively track progress and craft the necessary changes to the implementation strategy. Staff also believes the approach offers a simple, yet sophisticated process that balances the desire for concrete performance targets with the need for carefully nuanced responses when and if there is non-attainment.

Broadly, the approach to ag WUE milestones rests on several key concepts:

- Milestones will be simple and streamlined, yet sophisticated enough to track overall progress and incorporate the WUE Element’s core principles (objective-oriented, region-specific, incentive-driven actions).
- Progress towards implementation will be pegged only towards those Quantifiable Objectives that have been articulated at the time of assessment. The WUE Element will continue its ongoing work to articulate the remaining Quantifiable Objectives.

- Effort and outcome-related milestones will be staggered to provide sufficient time for actions to yield measurable results.
- Threshold targets will be based on a thorough assessment of program participation to-date and a reasonable estimation of future program performance.
- The successful attainment of milestones will be reported on a regular basis to CALFED public advisory bodies and CALFED agency policy-makers to inform future funding and implementation decisions within WUE and across other programs.
- Any process used to track progress towards achieving milestones will account for the varying causes of possible non-attainment, including but not limited to: insufficient funding, insufficient effort by CALFED, insufficient effort by cooperator and/or insufficient conceptual models. Responses will be crafted to account for these varying causes.
- The WUE Element will track progress in a manner that accounts for the scheduled assessments called for in the Record of Decision. To that end, wherever possible, milestones will be keyed to assessing progress two, four and seven years after the August 2000 signing of the ROD.

Building off these concepts, the ag WUE milestones – also referred to as “leading indicators” – seek to track three broad areas: administrative, implementation and results. These milestones are described in the section below and summarized in the accompanying tables (see Attachment 1). As noted earlier, if funding continues to deviate from ROD-stipulated levels, milestones and associated target thresholds will need to be refined commensurate with funding realities.

Administrative Milestones

Administrative milestones are focused on just one area: acreage enrollment in the Agricultural Water Management Council (AWMC). The targets – 3.8 million total acres within two years of the August 2000 ROD, 4.2 million within five years and 4.65 million acres within eight years – reflect enrollment targets already incorporated into the nearly completed Cooperative Agreement between CALFED and the AWMC. These targets also include the estimated 3.3 million acres already enrolled in the AWMC. The WUE Element includes these targets as a key milestone, since the AWMC’s work is seen as facilitating broad-based, locally cost-effective water conservations actions.

Successful attainment of administrative milestones will be reported on a regular basis to CALFED public advisory bodies and CALFED agency policy-makers. If milestones are not achieved, CALFED staff – using a process outlined in Section Three – will first seek to identify the causes of non-attainment. Possible reasons include: Cooperative Agreement not executed by December 2001; insufficient funding; unrealistic enrollment targets; ineffective marketing/outreach efforts; and/or, districts not willing to participate. Once the reason(s) are identified, staff will put forward a set of responses crafted to address the causes for non-attainment. For example, in the case of acreage enrollment targets, possible responses include: revise targets; increase funding; develop alternative marketing and/or implementation strategy; and/or change implementation partner.

Implementation Milestones

Implementation milestones are intended to track indicators that demonstrate progress in carrying out key tasks in the WUE Element implementation strategy. The milestones, described below, are focused on three areas in particular: grant program funding, grant program participation and grant program projected effects.

- **Grant Program Funding.** Budgetary targets are keyed to the ag-specific, grant-related figures extrapolated from the Record of Decision: \$15 million in federal/state funding in Year 2; \$166 million in federal/state funding in Year 4; and \$476 million in federal/state funding in Year 7. These funding targets are seen as vital, since they enable the WUE Element's incentive-driven approach. The implementation milestones also call for CALFED to earmark 90% of the ag-specific grant funding for the pursuit of the CALFED-developed Quantifiable Objectives.
- **Grant Program Participation.** The WUE approach is grounded in a voluntary, incentive-driven approach. Still, WUE staff believes it is important to track, in aggregate, broader agricultural participation in the program. To do so, WUE staff will look at two key indicators. One indicator – percent of money allocated – seeks to assess whether the earmarked grant funding is actually being awarded and spent; the WUE Element believes a successful program will be allocating 100% of the available funds. As well, to ensure that water use efficiency efforts are being undertaken throughout the CALFED Solution Area, the WUE Element includes a geographic distribution milestone: percentage of articulated Quantifiable Objectives being pursued in each region. Targets are 35% in Year 4 and 50% in Year 7. No target is included for Year 2.
- **Grant Program Projected Effects.** The WUE Element will look at the *projected* cumulative effects of grant-funded actions to assess the potential for the program to deliver flow/timing-, water quality- and water quantity-related Quantifiable Objectives (QOs). While projected effect will need to be verified in later years, expected benefits offer an important, interim tool for tracking program progress. Targets associated with this milestone are, as follows:
 - In Year 2, grant-funded actions are projected to achieve at least: 5% of cumulative acre-feet of articulated flow/timing QOs; 2% of cumulative acre-feet of articulated water quality QOs; and 2% of cumulative acre-feet of articulated water quantity QOs.
 - In Year 4, grant-funded actions are projected to achieve at least: 50% of cumulative acre-feet of articulated flow/timing QOs; 20% of cumulative acre-feet of articulated water quality QOs; and 20% of cumulative acre-feet of articulated water quantity QOs.
 - In Year 7, grant-funded actions are projected to achieve at least: 90% of cumulative acre-feet of articulated flow/timing QOs; 70% of cumulative acre-feet of articulated water quality QOs; and 70% of cumulative acre-feet of articulated water quantity QOs.

Successful attainment of implementation milestones will be reported on a regular basis to CALFED public advisory bodies and CALFED agency policy-makers. If milestones are not achieved, CALFED staff – again, using the process outlined in Section Three below – will first seek to identify the causes of non-attainment. Possible reasons include: insufficient funding available to either the CALFED, WUE or WUE Grant programs; shifting funding priorities within CALFED; insufficient effort by CALFED; incorrect QO-action linkage; and/or insufficient response by potential grant program participants. Possible responses include but are not limited to: improve program funding; revise targets to account for diminished funding or shifting funding priorities; revamp CALFED implementation efforts, including its marketing/outreach strategy and financial incentives; re-evaluate and modify conceptual models; and/or develop alternative implementation strategies, considering both regulatory and non-regulatory approaches.

Results Milestones

Results milestones – the most important of all the benchmark indicators – are structured to assess the program's progress in actually *realizing* its intended benefit: acre-feet of water associated with either water quality, water quantity or flow/timing objectives. Specific results-oriented targets are as follows:

- **For flow/timing-related Quantifiable Objectives:** Achieve at least 2% of cumulative acre-feet of articulated flow/timing QOs in Year 2; at least 20% in Year 4; and at least 80% in Year 7.
- **For water quality-related Quantifiable Objectives:** Achieve at least 1% of cumulative acre-feet of articulated water quality QOs in Year 2; at least 10% in Year 4; and at least 60% in Year 7.
- **For water quantity-related QOs:** Achieve at least 1% of cumulative acre-feet of articulated water quantity QOs in Year 2; at least 10% in Year 4; and at least 60% in Year 7.

Successful attainment of results-oriented milestones will be reported on a regular basis to CALFED public advisory bodies and CALFED agency policy-makers. If milestones are not achieved, CALFED staff – once again using the process outlined in Section Three below – will first seek to identify the causes of non-attainment. Possible reasons include: insufficient effort by CALFED; incorrect QO-action linkage; insufficient performance assessment (monitoring, timescale, etc.) and/or insufficient effort by grant program participants. Possible responses include but are not limited to: alter CALFED program implementation (funding, prioritization, financial incentives, QO articulation, interagency coordination and/or technical assistance); re-evaluate and modify conceptual models; increase/alter investment in monitoring and data analysis; improve access to and support for market strategy; and/or develop alternative implementation strategies, considering both regulatory and non-regulatory approaches.

Approach for Handling Unanticipated Outcomes

WUE Element staff recognizes that, as the program moves forward, it is likely to encounter unanticipated barriers and outcomes. For example, funding levels for CALFED may shift, technical work related to Quantifiable Objectives may generate unexpected results or ecosystem priorities may change. WUE staff has tried to anticipate such unknowns by putting in place a review mechanism that: 1) draws on numerous information sources (grantees, WUE staff, CALFED Science Program and others) to assess progress; and, 2) then develops nuanced responses that account for the underlying reasons for non-attainment. The WUE staff believes this combination of stipulated milestones and an adaptive framework for tracking progress is the strongest approach to handling uncertainty.

Additional Performance Measures

WUE staff will work within the program and with others to track two additional categories of milestones. These are:

- **Within Program.** CALFED WUE Element staff will track, on a regular basis, a variety of management-related milestones to ensure the program is moving forward as anticipated. While these indicators – such as executing the Cooperative Agreement, articulating the remaining Quantifiable Objectives, providing technical assistance and other – are not key milestones, they do feed into the program's ability to meet its more substantive milestones.
- **External to WUE.** Given WUE's emphasis on using its grant program to provide beyond-locally-cost-effective benefits, it is essential that the program work closely with the Science Program, the Ecosystem Restoration Program and others to ensure that the intended broader effects – increased flows, improved biological and habitat goals – are being realized. WUE staff expects and will facilitate frequent discussions and information-sharing with and across all relevant programs.

SECTION III: PROCESS FOR EVALUATING MILESTONES:

The Water Use Efficiency Element is moving forward with a program that is highly innovative – both in its approach and in the information it will use and refine. It also is a program that will garner much attention – from interest groups, from the broader public and from its funding sources. In fact, the Record of Decision itself stipulates that a comprehensive analysis be undertaken after four years to track the Program's effectiveness and determine future direction and funding.

With this in mind, WUE staff believe it is essential that the program put in place a process for tracking and assessing milestones that not only articulates clear benchmarks, but also identifies a credible strategy for generating a sophisticated assessment of Program progress, barriers and adaptive responses. Such a process – outlined below and reflected in the accompanying graphic (Figure 1) – is considered to be essential if the Program is to move forward in an effective manner and with broad stakeholder support.

- **Information Gathering.** The WUE Element intends to rely on several key sources of data to track program progress. Much of the information will come from water users and others that receive grant funding to carry out water use efficiency actions. Requirements are being developed by the program to guide such monitoring and reporting efforts. WUE staff also will generate reports, such as information on program funding decisions and overall participation in the ag WUE grant program. Finally, and importantly, WUE staff will put in place a comprehensive effort to provide an ongoing look at the program's technical and scientific underpinnings. Likely areas of focus will include, but not be limited to: articulation and possible refinement of Quantifiable Objectives (QO), QO-flow path linkage and monitoring strategies. Information will be drawn from the CALFED Science Program and other relevant CALFED programs, agencies and initiatives. A standing technical review committee – consisting of agricultural, environmental and agency representatives – also will be convened to assist in this effort. The composition, recruitment criteria and duties of the standing committee will be reviewed with the soon-to-be convened Water Use Efficiency Public Advisory Committee.
- **Preliminary Findings/Recommendations.** Using the information generated above, WUE staff will prepare preliminary findings that assess the Program's progress in meeting targets and, when necessary, identify reasons for non-attainment. These findings will provide a detailed assessment of each of the key indicators developed as part of the Program's milestones. Additionally, the staff report will propose responses that it believes will improve the effectiveness of the WUE program. (For example, if WUE staff believe the Quantifiable Objectives thresholds are not realistic, WUE staff may recommend modifications.) WUE staff may consult with ad-hoc committees, as needed, to assist in this effort.
- **Technical Review.** The WUE Program will convene the standing technical review committee to critique the staff-driven report and either confirm its findings or make suggestions for altering the report. Suggestions might include additional information needs, reinterpretations of data or revised recommendations. The technical review committee will strive to provide consensus feedback.
- **Draft Recommendations.** Using comments from the technical review committee, the WUE Program will prepare a draft report for consideration by public advisory bodies and CALFED agencies. The report will provide a comprehensive assessment of ag WUE progress to-date (keyed to the milestones outlined in the section, "Description of Milestones," above) and spell out any proposed program revisions. WUE staff will highlight and explain the rationale for any instance where it opts not to incorporate advice from the technical review committee. Staff recommendations will be informed, as appropriate, by discussions with CALFED management, the CALFED Science Program and others to account for cross-program implications.
- **Public Review.** Both the Water Use Efficiency Public Advisory Committee and the Bay-Delta Public Advisory Committee will be responsible for reviewing the draft report and providing comment to CALFED staff on any suggested revisions. WUE staff will revise the report, as appropriate, before forwarding a final version to CALFED agencies. WUE staff will highlight and explain the rationale for any

instance where it does not incorporate advice from either of the public advisory committees. WUE Program staff may convene, as appropriate, an independent review panel to provide a neutral critique of the entire process and findings.

- **CALFED Agency Review and Decision.** CALFED's decision-making entity – the Policy Group and/or its designee– will review the final report and direct the Program to either move forward with the measures outlined in the report or devise other responses. Policy Group will highlight and explain the rationale for any instance where its actions diverge from staff recommendations.

The WUE Program intends to conduct annual reviews using the process above. The process also will be used to fulfill the ROD commitment for a comprehensive review at the four-year mark. Additionally, as noted earlier, the WUE Program will coordinate with the CALFED Science Program and other CALFED elements to assess, among other things, the impact of WUE efforts on broader CALFED objectives.

SECTION IV: NEXT STEPS:

The approach outlined in this document is a staff-driven proposal informed by numerous, informal discussions within CALFED, with CALFED agencies and with a small, but diverse subset of agricultural and environmental stakeholders. As noted earlier, the proposed approach was vetted with affected stakeholder communities through a series of public workshops held throughout the state in May 2002.

As a next and final step, the WUE Program Manager recommends that this staff proposal be discussed with various CALFED decision-making bodies, including the WUE Subcommittee, the Bay-Delta Public Advisory Committee and the CALFED Policy Group. Once these bodies review and accept the proposed approach, CALFED staff will use these milestones to guide and track Program progress.

WUE staff expects to finalize this approach by mid-2002

ATTACHMENT 1
Agricultural Water Use Efficiency Program
Table 1: Summary²

COM- PLEXITY	FOCUS	CATEGORY OF ACTION	MILESTONES	PERFORMANCE INDICATOR	
Low	WUE Focus	Administrative	AWMC Acreage Enrollment	<ul style="list-style-type: none">• Number of acres enrolled	
.		Implementation	Grant Program Funding	<ul style="list-style-type: none">• Grant funding available• Percentage of WUE grant funding dedicated to pursuit of Quantifiable Objectives	
.			Grant Program Participation	<ul style="list-style-type: none">• Grant funding allocated• Distribution of Quantifiable Objectives being pursued	
.			Grant Program Projected Effects	<ul style="list-style-type: none">• Percent of cumulative volume projected<ul style="list-style-type: none">➤ For flow/timing-related Quantifiable Objectives➤ For water quality-related Quantifiable Objectives➤ For water quantity-related Quantifiable Objectives	
.					
.		Results	Grant Program Realized Effects: Flow/Timing-related	<ul style="list-style-type: none">• Fulfillment of Quantifiable Objectives<ul style="list-style-type: none">➤ Percent of cumulative volume achieved	
.			Grant Program Realized Effects: Water Quality-related	<ul style="list-style-type: none">• Fulfillment of Quantifiable Objectives<ul style="list-style-type: none">➤ Percent of cumulative volume achieved	
.			Grant Program Realized Effects: Water Supply-related	<ul style="list-style-type: none">• Fulfillment of Quantifiable Objectives<ul style="list-style-type: none">➤ Percent of cumulative volume achieved	
.					
.					
High					

² CALFED recognizes that the target thresholds included in these tables are dependent on funding consistent with the August 2000 CALFED Record of Decision. If WUE Program funding continues to deviate from the ROD-stipulated levels included in Table 3, the thresholds will need to be refined commensurate with funding realities.

Agricultural Water Use Efficiency Program
Draft Assurances Milestones: Detailed Tables
Table 2: AWMC Acreage Enrollment

MILESTONES	TARGET THRESHOLDS ³	POSSIBLE OUTCOMES	POSSIBLE REASONS	POSSIBLE RESPONSES
AWMC Acreage Enrollment	<u>Year 3</u> <ul style="list-style-type: none">3.8 million acres enrolled	<ul style="list-style-type: none">Achieve targets		<ul style="list-style-type: none">Continue implementation and consider adjustment of Cooperative AgreementInform Policy Group
		<ul style="list-style-type: none">Do not achieve targets	<ul style="list-style-type: none">Cooperative Agreement not executed by December 2001	<ul style="list-style-type: none">Revise targets to account for contractual execution
	<ul style="list-style-type: none">Insufficient funding		<ul style="list-style-type: none">Increase fundingRevise targets to account for reduced funding	
			<ul style="list-style-type: none">Develop alternative implementation strategy	
	<ul style="list-style-type: none">Unrealistic targets		<ul style="list-style-type: none">Revise targets	
	<ul style="list-style-type: none">Ineffective marketing/outreach		<ul style="list-style-type: none">Revise marketing strategyChange implementation partner	
			<ul style="list-style-type: none">Districts not willing to participate	<ul style="list-style-type: none">Develop alternative implementation strategy
	<u>Year 5</u> <ul style="list-style-type: none">4.2 million acres enrolled			
<u>Year 8</u> <ul style="list-style-type: none">4.65 million acres				

³ All timeframes on this and other tables keyed to August 2000 Record of Decision. AWMC targets assume Cooperative Agreement executed by December 2001.

**Agricultural Water Use Efficiency Program
Draft Assurances Milestones: Detailed Tables
Table 3: Grant Program Funding**

MILESTONES	TARGET THRESHOLDS	POSSIBLE OUTCOMES	POSSIBLE REASONS	POSSIBLE RESPONSES
Grant Program Funding	<u>Year 2</u> <ul style="list-style-type: none"> \$15 million in fed/state funding allocated to-date 90% of funds dedicated to QO pursuit⁴ <u>Year 4</u> <ul style="list-style-type: none"> \$166 million in fed/state funding allocated to-date 90% of funds dedicated to QO pursuit <u>Year 7</u> <ul style="list-style-type: none"> \$476 million in fed/state funding allocated to-date 90% of funds dedicated to QO pursuit 	<ul style="list-style-type: none"> Achieve targets 		<ul style="list-style-type: none"> Continue implementation Inform Policy Group
		<ul style="list-style-type: none"> Do not achieve targets 	<ul style="list-style-type: none"> Insufficient funding available for either CALFED, WUE or Grant Programs 	<ul style="list-style-type: none"> Increase funding to agreed levels
				<ul style="list-style-type: none"> Revise targets to account for funding constraints
				<ul style="list-style-type: none"> Develop alternative implementation strategies, considering both regulatory and non-regulatory approaches.
			<ul style="list-style-type: none"> Change in funding priorities 	<ul style="list-style-type: none"> Assess impact/effectiveness of shifting funding priorities
				<ul style="list-style-type: none"> Re-establish initial funding priorities Develop alternative implementation strategies, considering both regulatory and non-regulatory approaches

⁴ Includes funding spent on QO-related directed actions, research and education

**Agricultural Water Use Efficiency Program
Draft Assurances Milestones: Detailed Tables
Table 4: Grant Program Participation**

MILESTONES	TARGET THRESHOLDS ⁵	POSSIBLE OUTCOMES	POSSIBLE REASONS	POSSIBLE RESPONSES
Grant Program Participation	<u>Year 2</u> <ul style="list-style-type: none"> 100% of available funds allocated No geographic distribution targets 	<ul style="list-style-type: none"> Achieve targets 		<ul style="list-style-type: none"> Continue implementation Consider increase in funding for QO pursuit Inform Policy Group
			<ul style="list-style-type: none"> Insufficient effort by CALFED 	<ul style="list-style-type: none"> Improve Program funding, description, prioritization, outreach, interagency coordination and/or technical assistance
	<u>Year 4</u> <ul style="list-style-type: none"> 100% of available funds allocated At least 35% of articulated QOs with strong ag linkage being pursued in each region⁶ 	<ul style="list-style-type: none"> Do not achieve targets 		<ul style="list-style-type: none"> Re-evaluate and modify “market strategy,” including financial incentives
			<ul style="list-style-type: none"> Insufficient response by potential grant program participants 	<ul style="list-style-type: none"> Develop alternative implementation strategies, considering both regulatory and non-regulatory approaches

⁵ CALFED recognizes that the regional target thresholds included in these tables are dependent on funding consistent with the August 2000 CALFED Record of Decision. If WUE Program funding continues to deviate from the ROD-stipulated levels included in Table 3, the thresholds will need to be refined commensurate with funding realities.

⁶ QOs are identified as having a strong ag linkage based on: 1) strength of flowpath linkage; and, 2) relative contribution of the QO to attaining the Targeted Benefit. Percentage targets based on number of QOs expected to be articulated, an evaluation of the cost of pursuing QOs and anticipated funding levels.

**Agricultural Water Use Efficiency Program
Draft Assurances Milestones: Detailed Tables
Table 5: Grant Program Projected Effects**

MILESTONES	TARGET THRESHOLDS ⁷	POSSIBLE OUTCOMES	POSSIBLE REASONS	POSSIBLE RESPONSES
Grant Program Projected Effects	<u>Year 2</u> <ul style="list-style-type: none"> Projected to achieve at least: <ul style="list-style-type: none"> ➢ 5% of cumulative acre-feet of articulated flow/timing QOs ➢ 2% of cumulative acre-feet of articulated water quality QOs ➢ 2% of cumulative acre-feet of articulated water quantity QOs <u>Year 4</u> <ul style="list-style-type: none"> Projected to achieve at least: <ul style="list-style-type: none"> ➢ 50% of cumulative acre-feet of articulated flow/timing QOs ➢ 20% of cumulative acre-feet of articulated water quality QOs ➢ 20% of cumulative acre-feet of articulated water quantity QOs <u>Year 7</u> <ul style="list-style-type: none"> Projected to achieve at least: <ul style="list-style-type: none"> ➢ 90% of cumulative acre-feet of articulated flow/timing QOs ➢ 70% of cumulative acre-feet of articulated water quality QOs ➢ 70% of cumulative acre-feet of articulated water quantity QOs 	<ul style="list-style-type: none"> Achieve targets 		<ul style="list-style-type: none"> Continue implementation Consider increase in funding Inform Policy Group
		<ul style="list-style-type: none"> Do not achieve targets 	<ul style="list-style-type: none"> Insufficient effort by CALFED 	<ul style="list-style-type: none"> Improve Program funding, description, prioritization, QO articulation, outreach, interagency coordination and/or technical assistance
			<ul style="list-style-type: none"> Incorrect QO – action linkage 	<ul style="list-style-type: none"> Re-evaluate and modify conceptual models
			<ul style="list-style-type: none"> Insufficient response by potential grant program participants 	<ul style="list-style-type: none"> Re-evaluate and modify “market strategy,” including financial incentives Develop alternative implementation strategies, considering both regulatory and non-regulatory approaches

⁷ CALFED recognizes that the acre-feet target thresholds included in these tables are dependent on funding consistent with the August 2000 CALFED Record of Decision. If WUE Program funding continues to deviate from the ROD-stipulated levels included in Table 3, the thresholds will need to be refined commensurate with funding realities.

Agricultural Water Use Efficiency Program
Draft Assurances Milestones: Detailed Tables
Table 6: Grant Program Realized Effects – Flow/Timing Related⁸

MILESTONES	TARGET THRESHOLDS ⁹	POSSIBLE OUTCOMES	POSSIBLE REASONS	POSSIBLE RESPONSES
Grant Program Realized Effects: Flow/Timing-related	<u>Year 2</u> <ul style="list-style-type: none">Achieved at least 2% of cumulative acre-feet of articulated flow/timing QOs	<ul style="list-style-type: none">Achieve targets		<ul style="list-style-type: none">Continue implementationConsider increase in fundingInform Policy Group
		<ul style="list-style-type: none">Do not achieve targets	<ul style="list-style-type: none">Insufficient effort by CALFED	<ul style="list-style-type: none">Improve Program funding, description, prioritization, QO articulation, outreach, interagency coordination and/or technical assistance
	<ul style="list-style-type: none">Incorrect QO – action linkage		<ul style="list-style-type: none">Re-evaluate and modify conceptual models	
	<ul style="list-style-type: none">Insufficient performance assessment (monitoring, timescale, etc.)		<ul style="list-style-type: none">Increase/alter investment in monitoring and data analysis	
	<ul style="list-style-type: none">Insufficient effort by grant program participants		<ul style="list-style-type: none">Improve access to and support for “market strategy,” including financial incentives	
		<ul style="list-style-type: none">Develop alternative implementation strategies, considering both regulatory and non-regulatory approaches		
	<u>Year 4</u> <ul style="list-style-type: none">Achieved at least 20% of cumulative acre-feet of articulated flow/timing QOs			
	<u>Year 7</u> <ul style="list-style-type: none">Achieved at least 80% of cumulative acre-feet of articulated flow/timing QOs			

⁸ CALFED recognizes that the acre-feet target thresholds included in these tables are dependent on funding consistent with the August 2000 CALFED Record of Decision. If WUE Program funding continues to deviate from the ROD-stipulated levels included in Table 3, the thresholds will need to be refined commensurate with funding realities.

⁹ Cumulative acre-feet counted towards this milestone must contribute to articulated Quantifiable Objectives, which in turn contribute to a CALFED benefit.

Agricultural Water Use Efficiency Program
Assurances Milestones: Detailed Tables
Table 7: Grant Program Realized Effects – Water Quality Related¹⁰

MILESTONES	TARGET THRESHOLDS ¹¹	POSSIBLE OUTCOMES	POSSIBLE REASONS	POSSIBLE RESPONSES
Grant Program Realized Effects: Water Quality-related	<u>Year 2</u> <ul style="list-style-type: none">Achieved at least 1% of cumulative acre-feet of articulated water quality QOs	<ul style="list-style-type: none">Achieve targets		<ul style="list-style-type: none">Continue implementationConsider increase in fundingInform Policy Group
		<ul style="list-style-type: none">Do not achieve targets	<ul style="list-style-type: none">Insufficient effort by CALFED	<ul style="list-style-type: none">Improve Program funding, description, prioritization, QO articulation, outreach, interagency coordination and/or technical assistance
	<ul style="list-style-type: none">Incorrect QO – action linkage		<ul style="list-style-type: none">Re-evaluate and modify conceptual models	
	<ul style="list-style-type: none">Insufficient performance assessment (monitoring, timescale, etc.)		<ul style="list-style-type: none">Increase/alter investment in monitoring and data analysis	
	<ul style="list-style-type: none">Insufficient effort by grant program participants		<ul style="list-style-type: none">Improve access to and support for “market strategy,” including financial incentives	
		<ul style="list-style-type: none">Develop alternative implementation strategies, considering both regulatory and non-regulatory approaches		
	<u>Year 4</u> <ul style="list-style-type: none">Achieved at least 10% of cumulative acre-feet of articulated water quality QOs			
	<u>Year 7</u> <ul style="list-style-type: none">Achieved at least 60% of cumulative acre-feet of articulated water quality QOs			

¹⁰ CALFED recognizes that the acre-feet target thresholds included in these tables are dependent on funding consistent with the August 2000 CALFED Record of Decision. If WUE Program funding continues to deviate from the ROD-stipulated levels included in Table 3, the thresholds will need to be refined commensurate with funding realities.

¹¹ Cumulative acre-feet counted towards this milestone must contribute to articulated Quantifiable Objectives, which in turn contribute to a CALFED benefit.

Agricultural Water Use Efficiency Program
Assurances Milestones: Detailed Tables
Table 8: Grant Program Realized Effects – Water Quantity Related¹²

MILESTONES	TARGET THRESHOLDS ¹³	POSSIBLE OUTCOMES	POSSIBLE REASONS	POSSIBLE RESPONSES
Grant Program Realized Effects: Water Quantity-related	<u>Year 2</u> <ul style="list-style-type: none">Achieved at least 1% of cumulative acre-feet of articulated water quantity QOs <u>Year 4</u> <ul style="list-style-type: none">Achieved at least 10% of cumulative acre-feet of articulated water quantity QOs <u>Year 7</u> <ul style="list-style-type: none">Achieved at least 60% of cumulative acre-feet of articulated water quantity QOs	<ul style="list-style-type: none">Achieve targets		<ul style="list-style-type: none">Continue implementationConsider increase in fundingInform Policy Group
		<ul style="list-style-type: none">Do not achieve targets	<ul style="list-style-type: none">Insufficient effort by CALFED	<ul style="list-style-type: none">Improve Program funding, description, prioritization, QO articulation, outreach, interagency coordination and/or technical assistance
			<ul style="list-style-type: none">Incorrect QO – action linkage	<ul style="list-style-type: none">Re-evaluate and modify conceptual models
			<ul style="list-style-type: none">Insufficient performance assessment (monitoring, timescale, etc.)	<ul style="list-style-type: none">Increase/alter investment in monitoring and data analysis
			<ul style="list-style-type: none">Insufficient effort by grant program participants	<ul style="list-style-type: none">Improve access to and support for “market strategy,” including financial incentives
				<ul style="list-style-type: none">Develop alternative implementation strategies, considering both regulatory and non-regulatory approaches

¹² CALFED recognizes that the acre-feet target thresholds included in these tables are dependent on funding consistent with the August 2000 CALFED Record of Decision. If WUE Program funding continues to deviate from the ROD-stipulated levels included in Table 3, the thresholds will need to be refined commensurate with funding realities.

¹³ Cumulative acre-feet counted towards this milestone must contribute to articulated Quantifiable Objectives, which in turn contribute to a CALFED benefit.

Figure 1
Proposed Process for Evaluating Ag WUE Milestones and Developing Appropriate Responses
(For review and discussion with CALFED public advisory bodies, CALFED Policy Group and affected stakeholders.)

